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For: METHOD AND SYSTEM FOR CALCULATING THE TRANSIT TIME
OF AN ULTRASONIC PULSE

ABSTRACT OF DISCLOSURE

An automated method and system for calculating the transit time of a pulsed signal transmitted from a first ultrasonic transducer to a second ultrasonic transducer is provided. The method includes measuring the amplitude of the pulsed signal received at the second transducer from the first transducer; measuring the amplitude of any noise proximate to the received pulsed signal; and calculating the signal to noise ratio of the received pulsed signal and the noise, respectively. If the signal to noise ratio is above a predetermined threshold, a first technique is automatically implemented for calculating the transit time of the received pulsed signal. If the signal to noise ratio is less than the predetermined threshold, a second different technique is automatically implemented for calculating the transit time of the received pulsed signal.